

**IN THE SPECIFICATION:**

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~striketrough~~.

Please ~~REPLACE~~ the paragraph beginning at page 1, line 21, with the following paragraph:

a! As a result of an increasing use of computers in the fabric of society, checking a user identification based on a computer system has begun to be widely used in various fields relating to information processing. In the event that the checking of the user identification errs or misuse of the user identification is not prevented, ramifications are include not only damages onto individuals but also widespread confusion in society. Society demands a technology that achieves higher security in the checking of user identification.

[ Please REPLACE the paragraph beginning at page 1, line 31, with the following paragraph: ]

The scheme most widely used for a user identification check is to let a user ~~to~~ pick and register a pin code such as defined by 4 digits. When a user identification needs to be checked, the user enters his/her pin code, and a check is made as to whether the entered pin code and the registered pin code match. A match indicates that the user is authorized.

a! [ Please REPLACE the paragraph beginning at page 2, line 2, with the following paragraph: ]

When a pin code is fixed as defined by a series of fixed digits, ~~however~~, someone who sees a user entering a pin code may be able to pick up the code. This compromises security.

[ Please REPLACE the paragraph beginning at page 2, line 6, with the following paragraph: ]

Further, users tend to select a pin codes that are easy to remember for them, such as a selected portion of their phone number, the date of birth, the home address, etc. Such a tendency increases a chance of someone correctly guessing your a user's pin number. This is also a factor in compromising the ~~to compromise~~ security.

Please ~~REPLACE~~ the paragraph beginning at page 2, line 36, with the following paragraph:

*A2* In this scheme, however, a user needs to remember both the registered formula and the key number, and to calculate a required number in his head. This poses a great burden on the part of the user.

Please REPLACE the paragraph beginning at page 3, line 7, with the following paragraph:

*A3* Accordingly, there is a need for a scheme which can achieve high security without imposing an undue burden on users or on the system.